

ABSTRACT OF THE DISCLOSURE

5 A thread-safe debugging system and method including a thread-safe debug service
library and a thread-safe remote control library residing on at least one client computer
system. The client and server libraries provide APIs which allow multi-threaded
applications executing on the client computer system to take advantage of debug services
in a thread-safe and dynamic manner. The remote control library provides third party
10 applications the capability to initiate and manage the debug services on the client
dynamically and remotely. The debug services may include providing debug output,
listing the one or more debug objects in the multi-threaded application, listing the state of
each debug object, turning on or off any debug object by name or pattern, directing the
debug output to a remote location, allowing multiple remote diagnostic applications to
view the debug output of the application, and logging statistical or performance
15 information. The debug print function provides debug output for one or more threads of
the multi-threaded application such that the debug output of each thread remains distinct
from the debug output of the other threads. Thread safety may be ensured through the
use of thread-safe mechanisms such as locks.